

K E Y
TO THE
NEW YORK POINT SYSTEM
OF
Tangible Writing and Printing
FOR
LITERATURE, INSTRUMENTAL AND VOCAL
MUSIC, AND MATHEMATICS,
DESIGNED FOR THE USE OF THE BLIND.

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FOR THE BLIND INC.

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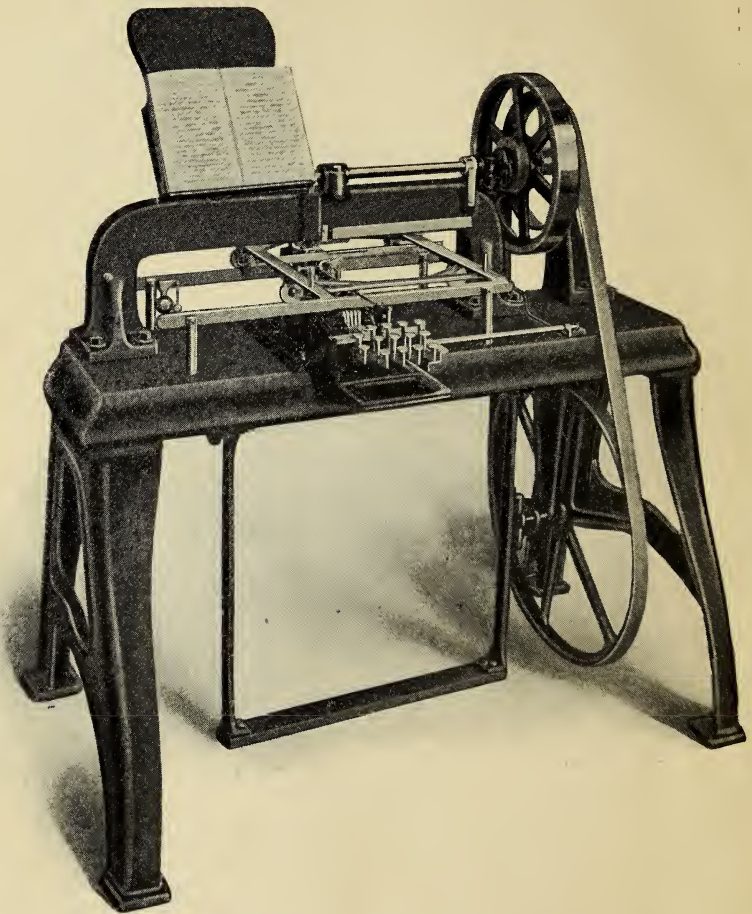
Revised from Editions of 1872, 1882 and 1893.

By WM. B. WAIT,

*Principal of The New York Institution for the Blind from 1863 to
1905; Emeritus Principal from 1905.*

1908.





STEREOGRAPH FOR EMBOSsing METAL PLATES USED IN PRINTING.



FOREWORD.

A brief reference to the origination, development and general adoption of the New York Point System of tangible literature and Music will be fitting in this place.

Immediately after taking charge of the New York Institution in 1863, I made an effort to establish the course of instruction upon a text-book basis, and in this way to enlarge the opportunities of the pupils for reading and study, and to lessen their almost total dependence upon their teachers, who, because of the lack of suitably embossed text-books, were obliged to impart instruction in all branches almost wholly by the oral method.

As a first step, a test of the reading power of each pupil was made, which disclosed that a majority of the pupils were unable to read at all, while only a few could read well.

The system then accepted and in general use was the Boston Line, a form of the ordinary Roman type, and as the only books then available were in that style, an intensive effort was made to impart to every pupil the power of facile finger reading.

This special effort, covering two years, proved that a large proportion of the pupils, including many having excellent mental endowments, were wholly unable to read the Boston Line books, and from data furnished by other schools, confirmed by my own observations, it was clear that similar inability to read existed in all the schools.

But, besides the lack of tangible power, the Roman form was found deficient in two other vital points: it is tangibly unwritable, and cannot be adapted to musical notation.

The conclusion inevitably was that the Roman or Line letters do not possess the three qualities—tangibility, writability and

adaptability—essential in a system of embossed literature, and that the problem could be solved only by the adoption of embossed points in both writing and printing.

There was in use in this school at that time, and for some years prior, a point alphabet on a vertical base of six points, arranged by one of the teachers, Mr. Adam McClelland, himself blind, and possessing rare intellectual gifts.

It is a matter of interest that Prof. Louis B. Carll while a pupil learned the system, and afterward used it in writing his great work, "Calculus of Variations." Mr. J. V. Armstrong, Principal of the Tennessee School for the Blind, Mr. Stephen Babcock, for many years a teacher in this school, and many others who were educated here, have largely used Mr. McClelland's arrangement.

It was with this alphabet that my first tests of the comparative tangible power of points and lines were made with pupils who could not read the latter, and which demonstrated the superiority of point signs over line signs.

But while Mr. McClelland's alphabet could be written as easily and appealed to the touch as strongly as any of the vertical systems, it was not adaptable to the structure of a musical notation, and this caused me to take up the original vertical point system of M. Louis Braille.

My examination of the structure and application of this system developed the fact that it is defective in several important respects: it is much more bulky and hence more costly than the Boston Line (which in the absence of any other system was then taken as a standard, and the cost of which was almost prohibitive); the number of possible single signs, *sixty-three*, is inadequate to the requirements of Literature, of Mathematics and of Music, so that none of these subjects can be correctly and fully represented by them.

From anything that could be learned from other sources about the Braille system, the existence of these inherent and grave defects had not been suspected, and when as the result of this inquiry they were disclosed, but one course was left open, which was to devise some different method of sign building, by which

the structural defects of the Braille might be avoided, the number of signs greatly increased, and the cost of books reduced to the lowest possible minimum. Obviously, two things only could be done: employ two points instead of three points vertically, and a series of base forms developing horizontally, and holding two, four, six, eight, ten, etc., points each.

With infinite care and labor I put this idea into effect, the final outcome being the New York Point System.

All the facts and data acquired throughout the years of study and laborious experiment that seemed to have no end can be found in full in the yearly reports of this Institution. In the reports for 1866 and 1867 the subject of embossed alphabets and books was generally considered. In the report for 1868 the New York Point Alphabet is given. In this connection it is proper to state that no details of the system were published until after I had stated to Dr. S. G. Howe, of the Boston School, and to Mr. William Chapin, of the Philadelphia School, that I had constructed a system demonstrably superior to that of M. Braille, but that in the interest of uniformity I would abandon any further effort on a new line if they would join me in adopting, improving and establishing the Braille system. My proposal was not received with favor, and I was therefore under no obligations either to adopt or advocate the defective Braille system as against a demonstrably better one, and the New York System was published.

In 1871, at the Indianapolis meeting of the American Association of Instructors of the Blind, the New York and Braille Codes were critically examined and compared, after which the Convention voted without a dissenting voice that the New York System ought to be taught in all schools for the blind.

In 1872, at the Boston meeting, I presented an outline of a system of Musical Notation complementary to the literary system, and was requested by the Convention to complete the system in detail, so that the schools might have the use of it as soon as possible.

The first edition of the Notation was printed in our report for 1872.

In 1878 the Music Notation was considered at length, and again approved by the Association.

Down to 1882 the entire United States Fund had been used in printing Boston Line books, but in that year 50 per cent. of the fund was set apart for books in New York Point.

In 1892 it was decided by the American Association of Instructors of the Blind that only reprints of Line books should be issued, and that any part of the 50 per cent. that had been reserved for Line books, not so needed, should be used in printing books in New York Point.

At the same time, 1892, twenty-four years after the New York Code had been published and twenty-one years after it had been accepted by the American Association and commended for general adoption, and after the Association had six times confirmed the New York System and six times refused to recognize any form of Braille, either original or derived, French, English or American, a small minority of the principals, in defiance of these repeated sanctions of the New York System and disavowals of all varieties of Braille by the Association, and willfully disregarding the great importance of having only one point system, needlessly and harmfully thrust forward a schismatic form of the Braille code, which they named American Braille.

In 1894, at a meeting of the trustees of the American Printing House for the Blind, and as a climax of a two years' campaign of propaganda, a motion was made to change the by-laws so as to recognize and promote American Braille. Twenty-six institutions were represented, and after full consideration five voted for and twenty-one voted against such recognition.

The facilities for writing and printing the New York Point System consist of a desk tablet, a pocket tablet and two machines: the Kleidograph for paper writing, and the Stereograph for embossing metal plates for use in printing.

The tablets have been improved by substituting a rectangular groove in place of a V-shaped groove or of separate pits.

Patents were granted for the Kleidograph and the Stereograph, which were at once transferred to the New York Institution without pecuniary advantage to myself.

The Franklin Institute of Philadelphia, after a searching examination into the system and into the design and merit of these machines, conferred the John Scott medal.

In this place a word or two may be said about a "universal type" for finger reading.

Roman letterpress type are common to the schoolbooks, newspapers and magazines of the nations of Western Europe, but this uniformity of type does not enable a native of one country to read or understand a language other than his own.

The only purpose of letters is to express language, and therefore a universal type or alphabet can have no use or value except to express a universal language.

"Esperanto" claims to be a universal language, and as the claim appears to have been substantiated, it is worthy of consideration in connection with embossed writing and printing.

Let it ever be remembered, however, that comparative recurrence of letters is the primary and only consideration that can properly determine the size and position of the type bodies or base forms, the number of points on each base, the number of signs that will be available for Literature, Mathematics, Music and short forms, and the use to which each sign should be applied.

These are the essential and controlling factors in the treatment of a universal language, as they are in the working out of a tangible system for any racial tongue, and a system constructed in any other way, as is the Braille and all its English and American imitations, will inevitably be unscientific in design and wasteful of money and time in practice.

This laborious and perplexing work has not been done solely from personal preference on my part, but primarily as a matter of duty, and to improve the methods and enlarge the means of education here and elsewhere.

It has ever been to me a source of satisfaction and encouragement that the Managers of this Institution have warmly sustained me throughout and have furnished every needed facility for putting the fruits of my efforts into permanent practice.

I desire to make mention here of the valuable services rendered by Mr. Stephen Babcock, who, being blind and filling the responsible position of principal teacher, was able to promote this work with deep interest and broad understanding.

The greatest number and most difficult of the problems met with are involved in the Music notation. After the general plan governing the derivation and correlation of the various classes of signs had been laid down and the general structure of the notation indicated, there still remained a vast amount of detail to be worked out, many comprehensive rules to be lucidly framed, and finally a library of music to be selected, edited and published. For the scholarly, skillful and thorough execution of this arduous task it is both duty and pleasure to express my sense of grateful obligation to Miss Hannah A. Babcock, who with unflagging interest and unusual insight has devoted herself for more than thirty years to the study of this subject, and to the accomplishment of the practical ends for which this notation was designed.

WILLIAM B. WAIT,
Emeritus Principal.

THE NEW YORK INSTITUTION FOR THE BLIND,
January 22, 1908.

KEY

TO THE

NEW YORK POINT ALPHABET, NUMERALS, PUNCTUATIONS AND ABBREVIATIONS.

The signs are constructed in a series of base forms, viz: First base, •; second, ••; third, •••; fourth, ••••; fifth, •••••; sixth, ••••••, etc. The number of signs furnished by each of the first six bases, respectively, is: 3, 9, 27, 81, 243, and 729; total, 1,092.

For convenience the points in the upper row are known as 1, 3, 5, 7, 9, etc., and in the lower row as 2, 4, 6, 8, 10, etc.

This order will be the same for both writing and reading. Writing is done with a stylet and tablet, with the Kleidograph (a machine designed for embossed writing on paper), and with the Stereograph (a machine for embossing metal sheets to be used in printing). In writing with the tablet the point *one* is in the *right* hand upper row. In writing with the Kleidograph or with the Stereograph the point *one* is in the *left* hand upper row, as it is also in reading.

RULES FOR WRITING.

First. Between all letters leave a blank space equal to one point.

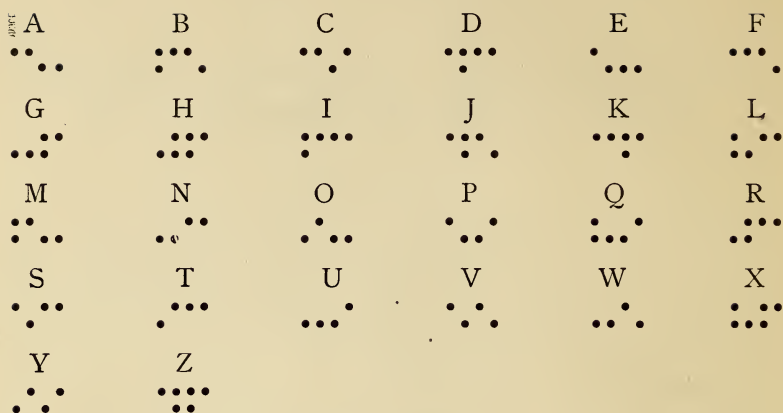
Second. Between all words leave a blank space equal to two points.

Third. In writing with the tablet, write from *right* to left. In writing with the Kleidograph or Stereograph, write from *left* to right.

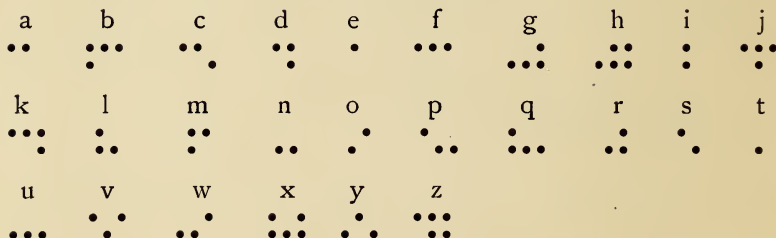
Written pages may be coated on the back side with a solution of shellac and alcohol.

THE ALPHABET.

CAPITAL LETTERS.



SMALL LETTERS.



It will be observed that the capital letters are derived from the small letters, by suffixing to each of them as many points as will form a new character four points in length, in the following manner:

First. When the small letter ends with a point in the upper row, as in the letter a, add the suffix in the lower row.

Second. When the small letter ends with a point in the lower row, as in c, or in both upper and lower rows, as in d, add the suffix in the upper row.

With the Kleidograph and Stereograph the small letters can be made into capitals by means of stylets which form larger points than those in the small letters.

SIGNS OF ABBREVIATION.

First class: Abbreviation by initial capital letters. Any proper name may be represented by its initial letter. The same letter may stand for different proper names in different books, or in different parts of the same book, but they should not be used in such a way as to obscure the meaning.

In each case, the word to be abbreviated should be written in full when it first occurs.

When desirable, a full list of abbreviated words should accompany the book, with a partial list at the head of each chapter.

When an initial capital stands for a word, a word space should precede and follow it.

Second class: Abbreviations by small letters, to be used only as separate words.

ABBREVIATIONS BY SMALL LETTERS.

b	c	f	g	h	j	k
but	can	for	great	had	just	kind
...
n	p	s	u	v	w	y
not	part	some	under	very	will	you
..

ABBREVIATIONS FOR WORDS AND PARTS OF WORDS BY SIGNS
OTHER THAN CAPITAL OR SMALL LETTERS.

and	almost	could	change	come	ever
..
from	good	have	large	of	shall
...
there	that	the	think	when	what
...
was	were	with	which	would	
...	

These signs may stand for separate words, or may form parts of words.

In using a contraction to form part of a word, syllabication and pronunciation should be strictly observed.

Thus: Mother, not Mother; Finger, not Finger; Andante, not Andante.

SIGNS FOR SYLLABLES, DIPHTHONGS, TRIPHTHONGS,
DIGRAPHS, ETC.

ade ••••	æ ••••	ance ••••	ant ••••	ate ••••	ough ••••	ain ••••
ble ••••	bly ••••	cede ••••	ceed ••••	ch ••••	com ••••	
con ••••	dis ••••	eau ••••	ence ••••	ent ••••	ess ••••	fer ••••
ful ••••	gh ••••	ight ••••	ion ••••	ing ••••	œ ••••	
ong ••••	ou ••••	per ••••	pro ••••	ph ••••	sh ••••	
sion ••••	tion ••••	th ••••	ure ••••	wh ••••		

It will be helpful for the student to arrange the contractions in reference to their base forms.

The Second base has but one contraction, viz: th ••

The Third base has 11 contractions, viz:

and ••	of ••	the ••	that ••	ing ••	ch ••	ou ••
gh ••	ph ••	sh ••	wh ••			

The Fourth base has 81 signs divided into nine groups of nine signs each.

The signs in each group of nine may be considered as made up of the signs formed on the Second base by a regular mode of compounding. Thus the signs of the Second base are:

a	d	l	m	n	o	r	s	th
••	••	••	••	••	••	••	••	••

Beginning with the first one, •• a new series may be formed by adding to it each one in order thus: •••• •••• •••• etc.

Beginning with the second one, •• we have •••• •••• etc.

In this way the nine groups are formed. These signs represent 26 capitals, 9 punctuations and 47 contractions, one sign of the ninth group having a double use. The entire series in nine groups can be readily acquired on the principle of association.

The following are the signs of the Fourth base, arranged in nine groups:

FIRST GROUP.

ade	æ	ance	K	A	C
••••	••••	••••	••••	••••	••••
ant	F	ate			
••••	••••	••••			

SECOND GROUP.

D	augh	ain	Z	ble	bly
••••	••••	••••	••••	••••	••••
cede	J	ceed			
••••	••••	••••			

THIRD GROUP.

L	com	con	X	dis	Q
••••	••••	••••	••••	••••	••••
eau	ence	ent			
••••	••••	••••			

FOURTH GROUP.

I	apostrophe	ess	hyphen	M	fer
⠠	⠠	⠠	⠠	⠠	⠠
ful	B	ight			
⠠	⠠	⠠			

FIFTH GROUP.

N	ion	asterisk	G	dash	U
⠠	⠠	⠠	⠠	⠠	⠠
œ	W	ong			
⠠	⠠	⠠			

SIXTH GROUP.

T	per	pro	sion	O	Y	tion
⠠	⠠	⠠	⠠	⠠	⠠	⠠
ure	almost					
⠠	⠠					

SEVENTH GROUP.

R	could	come	H	ever	from
⠠	⠠	⠠	⠠	⠠	⠠
good	have	large			
⠠	⠠	⠠			

EIGHTH GROUP.

S	shall	their	there	E	P
⠠	⠠	⠠	⠠	⠠	⠠
think	V	when			
⠠	⠠	⠠			

NINTH GROUP.

what	was	were	with	grave accent
⠠	⠠	⠠	⠠	⠠
acute accent	circumflex	would or diæresis	Italics	
⠠	⠠	⠠	⠠	

The Fifth base has 243 signs derived by suffixing to each of the 81 signs of the Fourth base the three signs respectively of the first base, viz: \cdot , \cdot and \cdot . Thus:

FIRST GROUP.

$\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ etc.,
making 27 signs.

SECOND GROUP.

$\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot$ etc., making 27 signs.

THIRD GROUP.

$\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot$ etc., making 27 signs.

The remaining six groups follow the same form.

The Sixth base has 729 signs derived by suffixing to each of the 81 signs of the Fourth base the 9 signs respectively of the Second base. Thus:

FIRST GROUP.

$\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$
 $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$
 $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$
etc., making 81 signs.

SECOND GROUP.

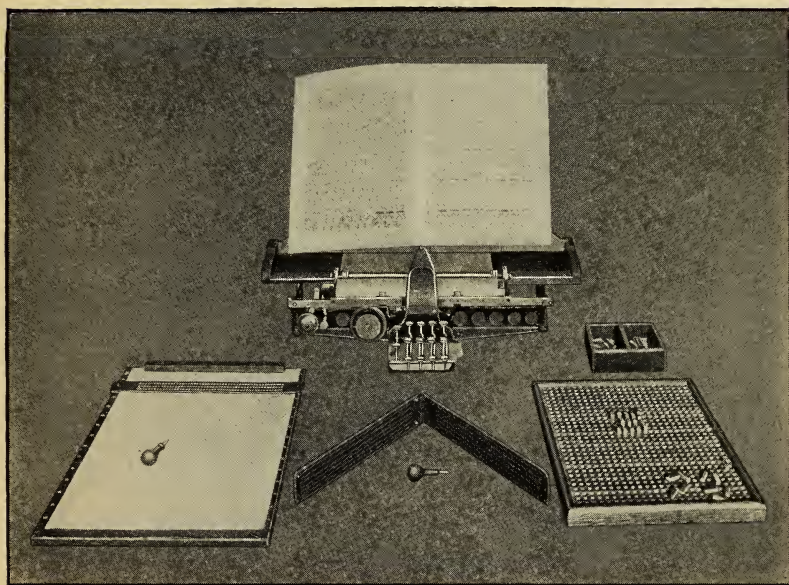
$\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$
 $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$
 $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$ $\cdot\cdot\cdot\cdot\cdot$
etc., making 81 signs.

The remaining seven groups are similarly formed.

The use of the signs of the Fifth and Sixth bases lies in an extension of the important field of contraction for both writing and printing, without the further development of which no economy in the bulk and cost of books can be hoped for beyond that already secured by the present practice of the New York Point System.

Larger bases than the Sixth are used for special purposes.

Kleidograph for Embossed Writing.



Desk Writing Tablet.

Pocket Tablet.

Frame and Type for Mathematics.

KEY

TO THE

NEW YORK POINT SYSTEM OF MUSICAL
NOTATION.

Remark. In learning these signs it is well to describe them in two ways: *First.* By numbering the points, thus—
D a quarter note ••• 1, 3; 3, 2, 4; or, 1, 3, 7; 6, 8.

Second. To give the alphabetic equivalent, thus—mezzo forte
••• | : | • s, d, blank, i, blank, e.*

Accent •••

Accelerando •••

Accidentals are placed before notes, intervals, turns and mordents. They are also sometimes placed after the turn and mordent signs, and in all cases the accidental is separated by one blank.

Appoggiatura, short •••

Appoggiatura, long •••••

Arpeggio ••••

Arpeggio, *continuously* through both hands •••• | •

A tempo

Bar ...; double bar ... | ...

Bridge sign •••

Crescendo • | :

Diminuendo • | • | :

Discontinuance : When this sign is separated from other signs by *two* blanks it discontinues a preceding slur. When it discontinues any other sign *it follows such sign* and is separated from it by *one* blank.

Dolce ••• | •

* The vertical lines indicate a blank space made by omitting the points.

Dot. One point in the upper row after a duration sign, and separated from it by one blank. The double dot has two points in the upper row, separated from the duration sign and from each other by one blank, thus—C a quarter double dotted :::: | • | • The triple dot has three points.

Down bow •••.

Finger signs. First, •••; second, ::::; third, •••; fourth, ::::; fifth, •••.

Flat. One point in the lower row before a note, interval, turn or mordent, and separated from it by one blank. The double flat has two points in the lower row, separated from each other and from the sign which it affects by one blank.

Forte : | •

Fortissimo : | • | •; very fortissimo : | • | • | •

Forte piano : | • | : | .

Forzando ••..

Group ..•

Group discontinued ..• | :

Half bow | :::: | •••

Harmonic in guitar and in violin:

Heel in organ pedaling ::::

Interval signs. First, ::::; second, ••.; third, ::::; fourth, ••.; fifth, ••.; sixth, ::::; seventh, ••.; eighth, ••.

Left foot in organ pedaling ::::

Left hand ::::

Lower half of bow | :: | •••

Lower third of bow | . | •••

Melody sign •••.

Mezzo forte ••• | : | •

Mezzo piano ••• | : | .

Middle of bow | :: | •••

Middle third of bow | : | . | •••

Mordent •••; mordent inverted ••• | •••.

Music $\bullet\ldots$ This is used in the body of *text* where an illustration of *music* occurs.

Music discontinued $\bullet\ldots | :$ or, word sign $\bullet\ldots$ may be used.

Natural $:$ One point in each row before a note, interval, turn or mordent, and separated from it by one blank.

Notes. The pitch sign for C is $\bullet\bullet$, for D is $\bullet\bullet$, for E is $\bullet\bullet$, for F is $\bullet\bullet$, for G is $\bullet\bullet$, for A is $\bullet\bullet$, for B is $\bullet\bullet$. The duration sign for a whole note is $\bullet\bullet$, for a half is $\bullet\bullet$, for a quarter is $\bullet\bullet$, for an eighth is $\bullet\bullet$, for a sixteenth is $\bullet\bullet$, for a thirty-second is $\bullet\bullet$, for a sixty-fourth is $\bullet\bullet$, for a one hundred and twenty-eighth is $\bullet\bullet$, rarely used. When both pitch and duration are used, the pitch is written first, followed by the duration sign. Thus C a quarter $\bullet\bullet\bullet\bullet$.

Number sign $\bullet\bullet\bullet$ This sign shows that the characters following it will be numerals.

Nut of bow $\bullet\ldots | \bullet\bullet | \bullet\bullet$

Octave signs. First octave, $\bullet\bullet\bullet$; second, $\bullet\bullet\bullet$; third, $\bullet\bullet\bullet$; fourth, $\bullet\bullet\bullet$; fifth, $\bullet\bullet\bullet$; sixth, $\bullet\bullet\bullet$; seventh, $\bullet\bullet\bullet$; eighth, $\bullet\bullet\bullet$

Open string $\bullet\ldots | \bullet\bullet | \bullet\bullet$

Pause $\bullet\bullet\bullet$

Pedal $\bullet\bullet\bullet$

Pedal discontinued $\bullet\bullet\bullet | :$

Piano $:$ | .

Pianissimo $:$ | . | . ; very pianissimo $:$ | . | . | .

Piano forte $:$ | . | : | .

Pizzicato $\bullet\ldots\bullet$

Point of bow $\bullet\ldots | \bullet\ldots | \bullet\bullet$

Portamento $\bullet\bullet\bullet$ placed before the note affected by it.

Pro forma $\bullet\bullet\bullet$

Rallentando $\bullet\ldots\bullet$

Repeat part of a measure, or one or more measures $\bullet\bullet$ viz, two points in the lower row.

Repeat note, chord, group or rest . viz, one point in the lower row.

Rest. Two points in lower row before the character expressing its length; thus, rest a whole, ..::; rest a half, ..::; rest a quarter,; rest an eighth,; rest a sixteenth,; rest a thirty-second,; rest a sixty-fourth,; rest one hundred twenty-eighth

Right foot in organ pedaling ::

Right hand ::

Ritardando ::

Ritenuto ::

Rinforzando ::

Sforzando ::

Sharp. One point in the upper row before a note, interval, turn or mordent, and separated from it by one blank. The double sharp has two points in the upper row, separated from each other and from the sign which it affects by one blank.

Slur . | :

Slur discontinued :

Sostenuto ::

Staccato . . .

Staccatissimo or very staccato

Stroke of the glottis in singing .

Swell . . .

Take breath in singing

Tenuto ::

Thumb in guitar : | :

Tie . :

Toe in organ pedaling ::

Tremolo . . .

Trill ::

Turn ::; turn inverted . . . | . . .

Up bow .:.

Upper half of bow .:.. | ... | :.

Upper third of bow .:.. | . | :.

Whole bow .:.. | .. | :.

With sign .

Word sign .:.. This is used in the body of *music* when *words* are to be used; at the close of the words the word sign with the discontinuance are used thus .:.. | : or the music sign .:.. may be used.

WORKING RULES FOR THE MUSICAL NOTATION.

RULES FOR THE USE OF ABBREVIATIONS, APPOGGIATURAS, FINGER SIGNS, GROUPS, INTERVALS, MORDENTS, OCTAVES, REPEAT SIGNS, SIGNATURES, SLURS, TIME SIGNS, TURNS AND *WITH* SIGNS, ALSO SIGNS FOR DR. HUGO RIEMANN'S NOTATION.

ABBREVIATIONS.

Rule First. When two or more notes in succession are of the same length, the value of the first note only is expressed.

Rule Second. A succession of chords having seconds, thirds, fourths, fifths, sixths, sevenths or octaves, may be abbreviated by making the interval sign twice in the first chord and once in the last chord, followed by the discontinuance sign, and separated from it by one blank.

Rule Third. When the sign for staccato, accent, tenuto, sforzando, turn, trill, mordent, etc., appears on four or more successive notes, write such sign twice (separated from each other by two blanks) before the first of such notes, and once after the last of such notes, followed by the discontinuance sign.

APPOGGIATURAS.

Rule First. The sign •• always represents the short appoggiatura, the value of which need not be written.

Rule Second. When the appoggiatura is *long* the letter l will precede the sign •• thus, l•• The value must be expressed.

Rule Third. When the appoggiatura consists of three tones or less, the sign must be placed before each note.

Rule Fourth. When the appoggiatura consists of four or more tones, make the sign •• twice before the first note and once after the last note, followed by the discontinuance sign, and separated from it by one blank.

FINGER SIGNS.

The finger signs are formed from the numerals ::, .:, •:. The numeral one with a point in the upper row before it makes first finger, with a point in the lower row before it makes second finger. The numeral three with a point in the upper row before it makes third finger, with a point in the lower row before it makes fourth finger. The numeral five with a point in the upper row before it makes fifth finger.

GROUPS.

Rule First. A single group is expressed by placing the group sign •• before the first note and after the last note of the group, followed by the discontinuance sign.

Rule Second. When a group is repeated, follow rule first and place a single point in the lower row once for each repetition.

Rule Third. In a succession of groups composed of different notes, the group sign is placed before each group, but the group and discontinuance signs may be omitted after each group except the last.

INTERVALS.

The intervals are: first, second, third, fourth, fifth, sixth, seventh and octave. The signs are formed by adding a single point in the lower row after the numeral showing the number of the interval. Thus, first interval, ::.; second interval, ••.; third interval, .:., etc.

Rule First. In expressing chords, write the lowest note, then the intervals of the chord in order upward. Unless the interval

exceeds an octave, the intervals are all reckoned from the lowest note of the chord.

Rule Second. When an interval exceeds an octave it is expressed by the sign *with* •., followed by the octave sign and then the note. Thus, ••||:•:•||•.||:••||:•.

Rule Third. Should more than one note exceed an octave, proceed as in rule second and reckon the intervals from the first note after the *with* sign. Thus, ••||:•:~||•.||:~||:~||:~.

Rule Fourth. The value of the lowest note only of a chord is expressed, and the intervals take the same value.

Rule Fifth. When any interval of a chord is changed by an accidental, such accidental sign should be placed before the interval sign affected and separated from it by one blank.

Rule Sixth. Finger signs are placed before intervals the same as before notes.

MELODY SIGN.

Rule First. The melody sign is •••, and is written before a note, when it is desired to distinguish it from the other notes.

Rule Second. When there are four or more melody notes in succession, write the melody sign twice before the first note and once with the discontinuance after the last one.

MORDENTS.

The mordent is indicated by the sign •••.

Rule First. The sign of the mordent ••• is placed before the note affected, and is separated from it by two blanks.

Rule Second. The inverted mordent is expressed by the sign made twice before the note affected, separated from each other by *one* blank, and from the note by two blanks.

Rule Third. When a sharp, flat or natural is placed above or at the left of the mordent sign *in ink print*, such sharp, flat or

natural should *precede* the sign for the mordent and be separated from it by *one* blank.

Rule Fourth. When a sharp, flat or natural is placed below or at right of the mordent sign *in ink print*, such sharp, flat or natural should *follow* the mordent sign and be separated from it by *one* blank.

Rule Fifth. When the mordent appears on four or more successive notes, write the sign $\cdot\therefore$ twice (separated by *two* blanks) before the first note and once after the last note followed by the discontinuance sign; thus, $\cdot\therefore \mid \therefore$

OCTAVE SIGNS.

The octaves are: first, second, third, fourth, fifth, sixth, seventh and eighth. The octave signs are formed by adding a single point in the upper row after the numeral showing the number of the octave. Thus, first octave, $\therefore\cdot$; second octave, $\therefore\cdot\cdot$; third octave, $\therefore\cdot\cdot\cdot$, etc.

Rule First. The octave sign will *not* be placed before any note which is a second or third from the preceding note.

Rule Second. The octave sign will *not* be placed before any note which is a fourth or fifth from a preceding note, *unless* such note falls in a different octave.

Rule Third. The octave sign will *always* be placed before any note which is more than a fifth from the preceding note.

Rule Fourth. The same rules will regulate the use of octave signs before the *lowest* notes of chords.

REPEAT SIGNS.

Rule First. When part of a measure from the beginning is repeated, the repeat sign $\therefore\cdot$ is made in the measure once for each repetition.

Rule Second. When a measure is repeated, the repeat sign $\therefore\cdot$ is made once in each repeated measure. The bars must also be indicated.

Rule Third. When two or more measures are repeated the number sign \therefore is written, then the numeral showing how many measures are to be repeated, and then the repeat sign made once for each repetition.

Rule Fourth. When at the end of a passage, any number of measures not including the last one of the passage, are repeated, the number sign \therefore is written, and then the numeral which shows how many measures must be counted backward to the place where the repeat begins, then is written the number sign and numeral which shows how many measures are included in the repeat and then follows the repeat \therefore sign made once for each repetition.

Rule Fifth. When a passage is repeated one or more octaves higher or lower, proceed as in rule first, second, third or fourth, as the case may require, and insert before the repeat sign the sign for the octave in which the repeated passage begins.

Rule Sixth. When a passage preceding the first double bar, or one included between two double bars, is repeated, write the double bar $\therefore \mid \therefore$ followed by the repeat sign \therefore and then the double bar.

Rule Seventh. When a note, chord, group or rest is repeated, it is expressed by placing one point in the lower row for each repetition.

Rule Eighth. A passage in which the order of tones by letter and the characters affecting them are the same consecutively as in a preceding passage, but which begins upon a different note, may be expressed by the repeat sign \therefore followed by the *pro forma* sign $\bullet\bullet$ and after it the note which begins the transposed form.

Rule Ninth. When the number sign is used in connection with the repeat sign, or when the double bar and repeat sign are used, the octave sign will be written at the beginning of the passage which follows the repeated passage.

SIGNATURES.

To indicate a signature, write a sharp or flat, as the case may be, then after one blank space write the number sign ∴ followed by the numeral which shows the number of sharps or flats in the signature. Thus, . | ∴ | ** gives a signature of two flats.

The signature is placed at the beginning of the right hand part of a piece, and is not written again unless a change occurs in the signature. It need not be placed at the beginning of the left hand part, but should be expressed in that part at a change of signature during the piece.

SLURS.

Rule First. The sign for the slur . | ∴ is placed before the notes slurred. The sign for discontinuance ∴ is placed after the notes slurred together and indicates the end of the slurred passage.

Rule Second. When a slur ends on the same note on which a new slur begins, write the second slur, then the note, and then the discontinuance of the first slur. This discontinuance cannot stop the second slur, as it had not slurred the note to any following note.

Rule Third. When the slurs meet between two notes and not on the notes, the end of the first slur will be written just after the second slur and separated from it by two blanks.

This need not be mistaken for the slur discontinuance in the compound slur, for two reasons: first, because there has been no sign for the compound slur, and second, the discontinuance is separated from the slur by two blanks instead of one.

SLURS—COMPOUND.

Rule First. When one slur ends two or more notes after the second slur begins, write the slur sign . | ∴ at the beginning of the first slur, and two slur signs . | ∴ || . | ∴ at the

beginning of the second slur; at the end of the first slur write . | : | : ; at the end of the second slur write . | : | | . | : | :

Rule Second. When two slurs begin upon the same note but end upon different notes, make the slur sign twice at the beginning, and the discontinuance sign only at the end of the short slur; at the end of the long slur make the slur sign twice with the discontinuance.

Rule Third. When a long slurred passage includes a shorter slurred passage, the slurs neither beginning nor ending with the same note, make the slur sign twice at the beginning of the long slur, and make it once at the beginning of the short slur; at the close of the short slur make it once with the discontinuance . | : | : ; and at the end of the long slur make it twice with the discontinuance . | : | | . | : | :

Rule Fourth. When two slurs begin upon different notes but end upon the same note, make the slur sign twice at the beginning of the first slur, and once at the beginning of the second slur, and at their close make the slur sign twice with the discontinuance.

TIME SIGNS.

To indicate the time of a piece, write the number sign and then the numeral which is the upper figure in ink print, followed by the numeral which is the lower figure, using one blank for each space. Thus, three four time, :::: | .: | ::

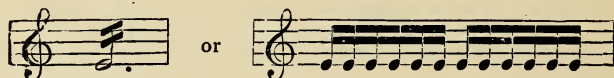
If either the upper or lower number consists of two figures, as twelve or sixteen, then this number should be separated from the other by two blanks. Thus, twelve eight time, :::: | :: | .. | | .

The time sign follows the signature in the right hand part, and is not written again unless the time changes.

It need not be placed in the left hand part unless the time changes during the piece; then it is well to express it at the point of change.

TREMOLO SIGN.

Rule First. When one note or chord is played tremolo, write the sign $\cdot\cdot\cdot$ then the note or chord, giving as its value the time covered by the tremolo, then the same note or chord, giving as its value the kind of note to be played in the tremolo, then the tremolo discontinue sign. Thus,



$\cdot\cdot\cdot$ || $\cdot\cdot\cdot$ || $\cdot\cdot\cdot$ | \cdot || $\cdot\cdot\cdot$ || $\cdot\cdot\cdot$ | : || ...

Rule Second. When two notes, a note and a chord, or two chords are alternated, write the tremolo sign, then the first note or chord, giving as its value the time covered by the tremolo, then the same note or chord, giving as its value the kind of note to be played in tremolo, then the note or chord which is played in alternation, followed by the tremolo discontinue sign. Thus,



$\cdot\cdot\cdot$ || $\cdot\cdot\cdot$ || $\cdot\cdot\cdot$ || $\cdot\cdot\cdot$ || $\cdot\cdot\cdot$ || $\cdot\cdot\cdot$ || $\cdot\cdot\cdot$ || $\cdot\cdot\cdot$ || $\cdot\cdot\cdot$ || :

Remark. In many cases the tremolo may be expressed by the use of the repeat sign without the tremolo sign, but in extended cases the use of the tremolo sign is more concise.

TURNS.

The turn is indicated by the sign $\cdot\cdot\cdot$.

Rule First. The horizontal turn is expressed by the sign $\cdot\cdot\cdot$ placed before the note affected, and is separated from it by two blanks.

Rule Second. The inverted turn is expressed by the sign ::•, made twice before the note affected, separated from each other by *one* blank, and from the note by *two* blanks.

Rule Third. When a sharp, flat or natural is placed above or at the left of either the horizontal or inverted turn in ink print, such sharp, flat or natural should *precede* the sign for the turn and be separated from it by *one* blank.

Rule Fourth. When a sharp, flat or natural is placed below or at the right of either the horizontal or inverted turn in ink print, such sharp, flat or natural should *follow* the sign for the turn and be separated from it by *one* blank.

Rule Fifth. When the turn is placed after the note which it affects, in ink print, it will be expressed by writing the note, followed by the turn sign, separated by *one* blank. If any ambiguity should arise, as, when the turn has an accidental over it or the note a dot after it, it will be better to write the notes of the turn with their value as played, rather than to use the turn sign.

Rule Sixth. When the turn sign appears on four or more successive notes, write the sign ::• twice (separated by *two* blanks) before the first note and once after the last note followed by the discontinuance sign; thus, ::•. | :

WITH SIGN.

When the notes of a chord are not of the same length, or where several notes are played against one or more notes of greater value, one class or kind of notes which compose the measure should be expressed, followed by the *with* sign •, and then the other notes which are played against those already written. Either the longer or shorter, or the higher or lower, may be written first, as will be most explicit. For the use of the *with* sign •, in chords where an interval exceeds an eighth, see *Rule Second* for Intervals.

WORDS TO BE SET TO MUSIC.

Rule First. Words and music are written separately.

Rule Second. Write one syllable for each note unless otherwise indicated.

Rule Third. Write the bar sign in the text, preceded and followed by two blanks. The music sign is not needed.

Rule Fourth. When two or more syllables are sung to one whole note in the measure, as in chants, write all such syllables and then the bar.

Rule Fifth. When two or more syllables are sung to one note, there being other notes in the measure, write such syllables and then leave a space of three blanks before writing the next syllable.

Rule Sixth. When separate syllables of a word are sung to separate notes, the hyphen may be used, especially before the bar sign.

Rule Seventh. When one syllable extends over two or more notes, the slur sign in the music should show how long to continue that syllable. If no slur sign is used, a dash may be used after the syllable, either for each note or for each rhythmical division of the measure.

Rule Eighth. If rests occur in the music, rest signs will also be written in the text. The music sign is not needed.

THE RIEMANN SIGNS.

Dr. Hugo Riemann uses certain new signs of notation, the point print signs for which will be as follows:

Two diagonal strokes at the end of a slur, called the interrupted slur . | •.

A single or double vertical stroke across a staff line (or lying diagonally over a bar), called a reading mark || • ||

An obtuse angle with the apex at the top, called rubato accent •• | •.

A comma placed in a horizontal position, called the half tie $\cdot \cdot | \vdots$

A comma placed in a vertical position, called the comma $\cdot \cdot | \cdot$

An obtuse angle with the apex at the bottom and a numeral in the angle to indicate the number of measures in the meter, called great meter $\cdot \cdot | \cdot$ followed by the number sign and numeral.

NOTES ON SPACING.

There are two methods of spacing, viz, *open* and *close*.

In open spacing two blanks are regularly used between all single or simple signs, the parts of compound signs being separated by one blank.

In close spacing one blank is regularly used between all signs, except when two blanks are required to render the construction clear.

The open spacing obviates some problems which occasionally arise in close spacing, and hence may be preferred in writing from dictation.

THOROUGH BASS WRITING.

In elementary work in harmony, the position or soprano note of a chord is often indicated by a numeral (generally placed over the bass note) before the student meets with figuring for the indication of harmonies.

RULES FOR POSITION.

Rule First. The position will be expressed by the word sign \therefore , followed by \cdot , the initial of *position*, and then the number sign and numeral for position. Thus, C a whole note, position of the octave, $\therefore \cdot \cdot \cdot \cdot \mid \therefore \cdot \cdot \cdot \cdot \mid \cdot \cdot \cdot \cdot \mid \therefore \cdot \cdot \cdot \cdot \mid \cdot \cdot \cdot \cdot \mid$

Rule Second. In ink print, if the position is to be high, a plus sign is sometimes placed before the numeral, and if low, a minus sign is thus placed.

In point print the initial of the word *high* or *low* is used as the case may require. Thus, C a quarter, high position of the octave, $\therefore \cdot \cdot \cdot \cdot \mid \therefore \cdot \cdot \cdot \cdot \mid \therefore \cdot \cdot \cdot \cdot \mid \cdot \cdot \cdot \cdot \mid \therefore \cdot \cdot \cdot \cdot \mid \cdot \cdot \cdot \cdot \mid$ F a whole, low position of the third, $\therefore \cdot \cdot \cdot \cdot \mid \therefore \cdot \cdot \cdot \cdot \mid \therefore \cdot \cdot \cdot \cdot \mid \cdot \cdot \cdot \cdot \mid \therefore \cdot \cdot \cdot \cdot \mid \therefore \cdot \cdot \cdot \cdot \mid$

Rule Third. If two positions are given to one chord the sign for position will be used with each numeral. Thus, C a half, position of the third and of the octave, $\therefore \cdot \cdot \cdot \cdot \mid \therefore \cdot \cdot \cdot \cdot \mid \cdot \cdot \cdot \cdot \mid \therefore \cdot \cdot \cdot \cdot \mid \therefore \cdot \cdot \cdot \cdot \mid \therefore \cdot \cdot \cdot \cdot \mid$

RULES FOR FIGURED BASS.

Rule First. The thorough bass figuring is expressed by the number sign and numerals. When two or more numerals are used they are separated from the number sign by one blank and from each other by two blanks. Thus, C a whole note figured six four $\therefore \cdot \cdot \cdot \cdot \mid \therefore \cdot \cdot \cdot \cdot \mid \therefore \cdot \cdot \cdot \cdot \mid \therefore \cdot \cdot \cdot \cdot \mid$

Rule Second. When a note has more than one set of bass figurings the number sign will precede each set. Thus, G a

half, figured six four and then five three $\cdot\cdot\cdot || \cdot\cdot || \cdot || \cdot ||$
 $\cdot\cdot || \cdot || \cdot ||$

Rule Third. An accidental which affects a numeral will precede it by one blank. Thus, C a whole note figured sharp six $\cdot\cdot\cdot || \cdot\cdot || \cdot || \cdot ||$

Remark. In ink print a line is sometimes drawn through a numeral to show that that interval is to be raised. In point print the proper accidental will be used with the numeral. Again, an accidental sometimes appears without a numeral and affects the third interval. In point print the accidental will precede the numeral *three* in such cases.

RULE FOR USE OF BOTH POSITION AND FIGURED BASS.

When a note has figuring for both position and bass, the position will follow the note and then the bass figuring. Thus, F a quarter, position of the third, figured five three and then four two $\cdot\cdot || \cdot\cdot || \cdot\cdot || \cdot\cdot || \cdot\cdot || \cdot\cdot || \cdot\cdot || \cdot\cdot ||$
 $\cdot\cdot || \cdot\cdot ||$

RULE FOR NOTES FOLLOWING A NUMERAL.

Notes of the same value, but which follow any numeral, must have the value expressed, unless such notes are preceded by an octave sign or a bar. Thus, third octave E a quarter figured six, D a quarter figured six four, bar, C a quarter position of the octave, fourth octave C a quarter $\cdot\cdot || \cdot\cdot || \cdot\cdot || \cdot\cdot ||$
 $\cdot\cdot || \cdot\cdot || \cdot\cdot || \cdot\cdot || \cdot\cdot || \cdot\cdot || \cdot\cdot || \cdot\cdot ||$
 $\cdot\cdot || \cdot\cdot ||$

TREATMENT OF THE HORIZONTAL LINE FOUND IN FIGURED BASSES.

In ink print, figured basses and positions are sometimes abbreviated by means of horizontal lines, thus, a bass note figured *six* may have a line at the right of the six with a *five* under the line. The line shows the continuance of the six and

will be read six and then six five. In point print the numeral will be written whenever the line occurs.

Again, a position figure may have a line at the right of it, extending over the following note, which shows that the same soprano is retained. Thus, F position of the octave, with a line at the right of the numeral eight, extending over the next note G, which is figured seven, shows that the F, which was the octave position of the first chord, is retained in the soprano of the second chord. In point print the position of the *seventh* of the second chord should be expressed instead of the horizontal line.

Furthermore, the horizontal lines are sometimes used to indicate the continuance of the *same harmony* during a change of bass notes. Thus, G figured six four may have lines drawn at the right of the six and of the four; these two lines may pass under C, E and another G, followed by G figured five three. This indicates the chord of C in its second inversion, fundamental form, first inversion, and then again second inversion, followed by the chord of G. In point print each bass note will have its own figuring, viz: G six four, C five three, E six, G six four, and G five three.

VOCAL MUSIC ON THE TONIC SOL FA BASIS.

In this method the voice parts are written separately.

For singing, the tones of the scale are called (as pronounced) doh, ray, me, fah, soh, lah, te, and are represented as follows :

doh	ray	me	fah	soh	lah	te
∴	∴	∴	∴	•	∴	•

In vocal music, these signs and names are used instead of the letter names, c, d, e, f, g, a, b. All major scales are read as doh, ray, me, fah, soh, lah, te, doh, and all minor scales as lah, te, doh, ray, me, fah, soh, lah.

The time values are indicated in the same manner as when letters are used. Thus, doh a quarter is ∴∴∴; te an eighth dotted is .∴∴ | •, etc.

Above each scale tone except me and te, there is a sharp chromatic tone, and below each scale tone except doh and fah, there is a flat chromatic tone.

The names of the sharp chromatic tones are de, re, fe, se, le, giving the vowel its long sound. Thus the accidental sharp fah is written • | ∴ and is sung fē.

The names of the flat chromatics are ta, la, sa, ma, ra, giving the vowel the sound heard in flat. Thus the accidental flat lah is written . | ∴ and is sung lă.

When a change of key occurs, new tones not heard in the old key are introduced, and some tones of the old key are retained in the new key, but under different names, which are determined by the new key tone. Thus, in changing from the key of C to the key of G, the tone soh of the old key becomes doh in the new key, a new tone sharp fah, which is sung fe, being introduced, which tends strongly upward, and gives to soh the

strength and quality of doh. This new tone is then called te, while the other tones of the old key of C, which are used in the new key of G, also take their names according to their distance from the new doh or tonic.

At the point of change a tone which is common to the old and the new key is called a bridge tone.

Bridge tones are indicated by the bridge sign ∴

The bridge tone is first written with the syllable belonging to it in the old key, followed by the bridge sign and then the syllable belonging to it in the new key.

The bridge signs are not used in a transient modulation, but only when the transition to a new key is complete.

LIST OF GENERAL ABBREVIATIONS.

WORD AND PART-WORD SIGNS.

For	ch	write	⠠⠠	For	ph	write	⠠⠠
"	ou	"	⠠⠠	"	the	"	⠠⠠
"	sh	"	⠠⠠	"	and	"	⠠⠠
"	th	"	⠠⠠	"	of	"	⠠⠠
"	wh	"	⠠⠠	"	that	"	⠠⠠
"	gh	"	⠠⠠	"	ing	"	⠠⠠

The use of the foregoing signs in the following lists is indicated by italics:

<i>For</i>		<i>Write</i>	<i>For</i>		<i>Write</i>
Able } as ending	-	bl	Come	-	cm
Ible }	-		Coming	-	<i>cm̃ng</i>
About	-	abt	Common	-	com
Above	-	abv	Convenient	-	convnt
Account	-	acct	Convenience	-	convnc
According	-	<i>acrd̃ng</i>	Conveniently	-	convntl
Accordingly	-	<i>acrd̃ngl</i>	Could	-	cd
After	-	af	Definition	-	defntn
Afterward	-	afwd	Demonstration	-	dm̃st̃n
Again	-	agn	Differ	-	dfr
Against	-	agnst	Difference	-	df̃nc
Almost	-	al	Different	-	df̃nt
Altogether	-	<i>alg̃th̃r</i>	Differently	-	df̃nt̃l
Always	-	alws	Does	-	ds
Among	-	amg	Down	-	dn
Amount	-	amt	Downward	-	dnwd
Another	-	<i>añth̃r</i>	Either	-	<i>eth̃r</i>
Answer	-	ans̃	Elsewhere	-	<i>ls̃wh̃r</i>
Anywhere	-	<i>anỹwh̃r</i>	Except	-	xcpt
Because	-	bcs	Excepting	-	<i>xcpt̃ng</i>
Been	-	bn	Exception	-	xcpt̃n
Before	-	bfr	Express	-	xprs
Begin, begun or began	-	bg̃n	Expressed	-	xprsd
Below	-	blw	Expression	-	xprsn
Beneath	-	<i>bñth̃</i>	Extraordinary	-	xtr̃dñy
Beside, besides	-	bsd, bsds	First	-	f̃st
Between	-	btwn	Forward	-	frwd
Better	-	btr	Found	-	f̃nd
Business	-	bzns	Ful, as ending	-	f̃l
Change	-	<i>ch̃ng</i>	Further	-	<i>fr̃th̃r</i>
Changing	-	<i>ch̃ng̃ng</i>	General	-	gen

<i>For</i>	<i>Write</i>
Give - - -	gv
Goes - - -	gs
Gone - - -	gn
Government - - -	govt
Greater - - -	gtr
Greatest - - -	gtrst
Hence - - -	hnc
Henceforth - - -	hncfth
Henceforward - - -	hncfwd
Here - - -	hr
Hereafter - - -	hrftr
Heretofore - - -	hrtfr
Herewith - - -	hrwth
Herein - - -	hrn
Herself - - -	hrsfr
Him - - -	hm
Himself - - -	hmsfr
His - - -	hs
Instead - - -	instd
Inward - - -	inwd
Inwardly - - -	inwdl
Itself - - -	itsfr
Kind - - -	k
Kinds - - -	ks
Know or knew - - -	kn
Knows - - -	kns
Known - - -	knn
Knowing - - -	kning
Large - - -	lg
Less - - -	ls
Like - - -	lk
Likewise - - -	lkws
Little - - -	ltl
Live - - -	lv
Made - - -	md
Make - - -	mk
Man - - -	mn
Ment, as ending - - -	mt
Might - - -	mgt
Mister - - -	Mr
Much - - -	mch
Must - - -	mst
Myself - - -	msfr
Nearly - - -	nrly
Necessary - - -	nec
Necessarily - - -	necl
Neither - - -	nthr
Neighbor - - -	nbr
Ness, as ending - - -	ns
Never - - -	nv
None - - -	nn
Nor - - -	nr
Nowhere - - -	nwhr
Object - - -	obj
Objection - - -	objtn

<i>For</i>	<i>Write</i>
Occasion - - -	ocsn
Often - - -	ofn
Onward - - -	onwd
Opinion - - -	opn
Opportunity - - -	optnty
Other - - -	oth
Otherwise - - -	othws
Outward - - -	outwd
Outwardly - - -	outwdl
Point - - -	pnt
Principal or principle - - -	prin
Probable - - -	prbl
Probably - - -	prbly
Quarter - - -	qr
Quarters - - -	qrs
Question - - -	qn
Questionable - - -	qnbll
Reference - - -	rfnc
Right - - -	rt
Rightly - - -	rtl
Round - - -	rnd
Self - - -	sf
Several - - -	svl
Should - - -	sh
Sion, as ending - - -	sn
Take - - -	tk
Than - - -	thn
This - - -	ths
Tion, as ending - - -	tn
Together - - -	tgthr
Underneath - - -	ndrnth
Understand - - -	ndrstand
Unless - - -	nls
Until - - -	ntl
Upon - - -	upn
Upward - - -	upwd
Ward, as ending - - -	wd
Was - - -	ws
Were - - -	wr
What - - -	wht
Whether - - -	whtthr
When - - -	whn
Where - - -	whr
Wherefore - - -	whrf
Wherein - - -	whrn
Whereby - - -	whrb
Whereto - - -	whrt
Whereupon - - -	whrpn
While - - -	whl
Whose - - -	whs
Whom - - -	whm
Whomsoever - - -	whmsvr
Willing - - -	wling
You - - -	y

ABBREVIATIONS FOR WORDS CHIEFLY USED IN MUSICAL LITERATURE.

<i>For</i>	<i>Write</i>	<i>For</i>	<i>Write</i>
Accent - - -	ac	Interval - - -	int
Accented - - -	actd	Intervals - - -	ints
Accidental - - -	acl	Inversion - - -	inv
Accompaniment - - -	acmp	Inversions - - -	invs
Action - - -	actn	Inverted - - -	invd
Alto - - -	alt	Imperfect - - -	imper
Altered - - -	altrd	Leading tone - - -	lt
Alternation - - -	altrtn	Legato - - -	leg
Alternating - - -	altrtn ^{ing}	Lowered - - -	lwd
Anticipation - - -	antcpn	Major - - -	maj
Anticipated - - -	antcpd	Measure - - -	msr
Arpeggio - - -	arp	Measures - - -	msrs
Augmented - - -	aug	Mediant - - -	med
Bad - - -	bd	Melody - - -	mel
Bass - - -	bs	Melodic - - -	melc
Cadence - - -	cad	Melodies - - -	mels
Cadences - - -	cads	Metronome - - -	met, or M
Canto fermo - - -	cf	Minor - - -	min
Chord - - -	ch	Modulate - - -	mdlt
Chords - - -	chs	Modulation - - -	mdltn
Chromatic - - -	chro	Modulations - - -	mdltns
Chromatically - - -	chromly	Modulating - - -	mdltn ^g
Consonance - - -	cnsnc	Motion - - -	motn
Consonances - - -	cnsncs	Neighboring note - - -	nbring nt
Consonant - - -	cnsnt	Neighboring notes - - -	nbring nts
Contrary - - -	cont	Ninth - - -	nth
Consecutive - - -	consec	Octave - - -	oct
Concealed - - -	conclcd	Octaves - - -	octs
Counterpoint - - -	cp	Opus - - -	op
Degree - - -	deg	Organ - - -	org
Degrees - - -	degs	Organ Point - - -	org pnt
Dependent - - -	dep	Parallel - - -	par
Diatonic - - -	dia	Period - - -	prd
Diatonically - - -	dialy	Perfect - - -	per
Diminished - - -	dim	Phrase - - -	ph
Dissonant - - -	dis	Position - - -	posn
Dissonance - - -	disnc	Positions - - -	posns
Dominant - - -	dom	Practise - - -	prc
Double - - -	dbl	Practised - - -	prctd
Doubled - - -	dbld	Practising - - -	prc ^{ing}
Doubling - - -	dbl ^{ing}	Preparation - - -	prepn
Example - - -	ex	Prepared - - -	prepd
Exercise - - -	exe	Principal - - -	prin
Fifth - - -	fth	Progression - - -	prog
Finger - - -	fng	Progressions - - -	progs
Fingers - - -	fngs	Progressed - - -	progd
Fingering - - -	fng ^{ing}	Raised - - -	rsd
First - - -	fst	Resolve - - -	res
Fourth - - -	frth	Resolved - - -	resd
Fundamental - - -	fdmtl	Resolution - - -	resn
Good - - -	gd	Rhythm - - -	rh
Harmony - - -	har	Rhythmic - - -	rhc
Harmonic - - -	harc	Rhythmical - - -	rhcl
Harmonically - - -	harcly	Rhythmically - - -	rhcly
Hidden - - -	hdn	Rhythms - - -	rhs
Independent - - -	indp	Scale - - -	sc

<i>For</i>			<i>Write</i>
Scales	-	-	scs
Second	-	-	scnd
Section	-	-	sec
Seventh	-	-	svth
Sixth	-	-	sxth
Sixteenth	-	-	sxnth
Soprano	-	-	sop
Staccato	-	-	stac
Subordinate	-	-	sub
Subdominant	-	-	subdom
Submediant	-	-	submed
Subtonic	-	-	subton
Substitution	-	-	substn
Substituting	-	-	substng
Supertonic	-	-	supton
Suspension	-	-	susp

<i>For</i>			<i>Write</i>
Suspensions	-	-	susps
Suspended	-	-	suspd
Syncopation	-	-	syn
Syncopated	-	-	syntd
Tenor	-	-	ten
Tenth	-	-	tnth
Tonic	-	-	ton
Triad	-	-	tr
Triads	-	-	trs
Triplet	-	-	trp
Triplets	-	-	trps
Unaccented	-	-	unactd
Unison	-	-	un
Unisons	-	-	uns
Voice	-	-	vc
Voices	-	-	vcs

WORDS RELATING TO THE ORGAN.

<i>For</i>			<i>Write</i>
Bassoon	-	-	bsn
Bourdon	-	-	brdn
Choir	-	-	chr
Clarinet	-	-	clr
Diapason	-	-	diap
Dulciana	-	-	dul
English Horn	-	-	Eng hn
Feet or Foot	-	-	ft
Flute	-	-	fl
Flute Traverse	-	-	fl trav
Fifteenth	-	-	ftnth
Gamba	-	-	gam
Gemshorn	-	-	gmshn
Harmonic Flute	-	-	harc fl
Hautboy	-	-	obo
Hohlflöte	-	-	hlfe
Keraulophon	-	-	ker
Manual	-	-	mnl
Mixture	-	-	mix
Open	-	-	opn
Pedal	-	-	ped

<i>For</i>			<i>Write</i>
Pedals	-	-	peds
Piccolo	-	-	pic
Quint	-	-	qnt
Rohrflöte	-	-	rfl
Salicional	-	-	sal
Solo	-	-	sol
Sesquialtera	-	-	sesalt
Spitzflöte	-	-	spfl
Swell	-	-	sw
Stop	-	-	stp
Stops	-	-	stps
Stopped	-	-	stpd
Trombone	-	-	trom
Trumpet	-	-	trm
Twelfth	-	-	tlfth
Viola	-	-	vla
Violin	-	-	vln
Violoncello	-	-	cello
Vox Humana	-	-	v h
Waldflöte	-	-	wlfl

LIST OF SIGNS AND ABBREVIATIONS ADAPTED TO MATHEMATICS.

NUMERALS.

1	2	3	4	5	6	7	8	9	0
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮

The sign $\ddot{\cdot}$, called number sign, is placed before these signs to show that they are used as numerals. These numerals are used in arithmetic and for all ordinary purposes.

The decimal point is \cdot .

For algebra, however, the signs representing numerical and literal quantities should be quite distinct. Hence, in algebraic work the following signs are used for numerals.

In printed books:

1	2	3	4	5	6	7	8	9	0
T	⊢	⊥	⊣	V	>	Λ	<	L	□

In *written* algebra the numerals are:

1	2	3	4	5	6	7	8	9	0
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮

The number sign is not used in connection with this series.

Sign for division $\ddot{\cdot}$

“ “ division ended $\ddot{\cdot} \mid :$

“ “ equality $\ddot{\cdot}$

“ “ exponent $\ddot{\cdot}$

“ “ exponent ended $\ddot{\cdot} \mid :$

“ “ inequality (*greater* than) $\ddot{\cdot} \mid .$

“ “ “ (*less* than) $\ddot{\cdot} \mid .$

“ “ infinity $\ddot{\cdot}$

“ “ is to, in stating a ratio $\ddot{\cdot} \mid .$

“ “ as, in stating a proportion $\ddot{\cdot}$

Sign for minus $\ddot{::}$

“ “ multiplication $\cdot\ddot{::}$

“ “ multiplication ended $\cdot\ddot{::} | \ddot{::}$

“ “ plus $\ddot{::}$

“ “ plus and minus $\ddot{::} | \ddot{::}$

“ “ parenthesis $\ddot{::}$

“ “ double parentheses $\ddot{::}\ddot{::}$

“ “ triple parentheses $\ddot{::}\ddot{::}\ddot{::}$

“ “ quadruple parentheses $\ddot{::}\ddot{::}\ddot{::}\ddot{::}$

“ “ radical $\cdot\ddot{::}$

“ “ radical ended $\cdot\ddot{::} | \ddot{::}$

“ “ subscript $\cdot\ddot{::} | \ddot{::}$

NOTE.—The vertical lines indicate a blank space made by omitting the points.

NOTE.—In *printed* algebra numerical quantities will be expressed by the **T V** signs, and all literal quantities by the alphabetic *point* signs. In *written* algebra point signs only are used.

SUGGESTIONS.

First. The structure of every expression should be carefully studied and fully understood before attempting to write it.

Second. The use of the parenthesis is of special importance, as it serves to identify quantities which should be construed together as one, and to distinguish the whole from the parts of an expression.

Third. The numerator of a fraction, unless it be a monomial, should be included in a single parenthesis followed by the sign for division, and then the denominator followed by the sign for division ended. The denominator may or may not be inclosed in parentheses, as the case may require.

Fourth. When the numerator or denominator is a fraction, it should be written as above, the whole fraction being included in a double parentheses.

If a fraction appears in both numerator and denominator, the whole expression should be included in a triple parentheses, the fractional numerators each in a double and the sub-numerators in a single parenthesis.

Fifth. In general, the parentheses should be used so as to secure an exact reading. A parenthesis of any grade greater than the single one will indicate that parenthetical quantities of lesser grade are included.

The above suggestions furnish a general idea of the plan by which any algebraic expression may be recorded in tangible form.

ABBREVIATIONS FOR WORDS CHIEFLY USED IN MATHEMATICS.

<i>For</i>				<i>Write</i>				<i>For</i>				<i>Write</i>
Adding -	-	-	-	ading				Extremes -	-	-	-	xtms
Addition -	-	-	-	adtn				Factor -	-	-	-	fr
Algebra -	-	-	-	alg				Factoring -	-	-	-	firing
Algebraic -	-	-	-	algc				First -	-	-	-	fst
Angle -	-	-	-	ngl				Fifth -	-	-	-	ftth
Acute angle -	-	-	-	ct ngl				Follows -	-	-	-	fol
Antecedent -	-	-	-	antc				Following -	-	-	-	foling
Binomial -	-	-	-	bnl				Form -	-	-	-	fm
Circle -	-	-	-	cir				Formula -	-	-	-	fmula
Circumference -	-	-	-	crcm				Fourth -	-	-	-	frth
Coefficient -	-	-	-	coef				Fraction -	-	-	-	ftn
Comparison -	-	-	-	comp				Hexagon -	-	-	-	xgn
Comparing -	-	-	-	comping				Homogeneous -	-	-	-	homo
Compared -	-	-	-	compd				Lateral -	-	-	-	ltrl
Consequent -	-	-	-	cons				Mathematics -	-	-	-	math
Continued -	-	-	-	cont				Measure -	-	-	-	meas
Cube -	-	-	-	cb				Measured -	-	-	-	measd
Decimal -	-	-	-	dec				Measuring -	-	-	-	measing
Denominator -	-	-	-	dntr				Member -	-	-	-	mem
Denominators -	-	-	-	dntrs				Members -	-	-	-	mems
Diameter -	-	-	-	dmr				Minuend -	-	-	-	mnd
Difference -	-	-	-	dif				Monomial -	-	-	-	mon
Divide -	-	-	-	dv				Multiply -	-	-	-	ml
Divided -	-	-	-	dvd				Multiplied -	-	-	-	mld
Dividing -	-	-	-	dvding				Multiple -	-	-	-	mlpl
Dividend -	-	-	-	dvnd				Multiplier -	-	-	-	mlpr
Division -	-	-	-	divn				Multiplicand -	-	-	-	mlcand
Divisor -	-	-	-	dvr				Multiplication -	-	-	-	mltn
Elimination -	-	-	-	elim				Negative -	-	-	-	neg
Equation -	-	-	-	eqtn				Negatively -	-	-	-	negl
Equivalent -	-	-	-	eqv				Ninth -	-	-	-	nth
Exponent -	-	-	-	xpnt				Numeral -	-	-	-	nmrl
Exponential -	-	-	-	xpntl				Numerical -	-	-	-	nmcl

<i>For</i>		<i>Write</i>
Numerically	- - -	nmclly
Number	- - -	num
Numerator	- - -	nmr
Octagon	- - -	octgn
Obtuse angle	- - -	ob ngl
Order	- - -	ord
Operation	- - -	optn
Operations	- - -	optns
Parallel	- - -	par
Parallelogram	- - -	pargm
Parenthesis	- - -	prnths
Pentagon	- - -	pngn
Perform	- - -	prfm
Performed	- - -	prfmd
Performing	- - -	prfmng
Perpendicular	- - -	pr
Plane	- - -	pl
Polygon	- - -	plgn
Polynomial	- - -	plnl
Positive	- - -	pstv
Positively	- - -	pstvl
Prime	- - -	prm
Product	- - -	pdt
Proportion	- - -	prpn
Power	- - -	pwr
Powers	- - -	pwrns
Quantity	- - -	qnt
Quantities	- - -	qnts
Quadrilateral	- - -	qdl
Quotient	- - -	qnt
Radical	- - -	rdl
Radius	- - -	rad
Ratio of diameter	to	
circumference	- -	pi
Reciprocal	- - -	rcpl
Rectangle	- - -	rcngl
Reduce	- - -	rdc

<i>For</i>		<i>Write</i>
Reduced	- - -	rdcd
Reducing	- - -	rdcing
Remainder	- - -	rem
Represent	- - -	repr
Represented	- - -	reprd
Representing	- - -	reprng
Require	- - -	req
Required	- - -	reqd
Right angle	- - -	rt ngl
Root	- - -	rt
Second	- - -	scnd
Secant	- - -	sec
Seventh	- - -	svnth
Similar	- - -	smlr
Sixth	- - -	sxth
Subtraction	- - -	subtn
Subtrahend	- - -	subnd
Subtract	- - -	subt
Subtracted	- - -	subtd
Substitute	- - -	subst
Substituted	- - -	substd
Substituting	- - -	substng
Square	- - -	sq
Tangent	- - -	tan
Tenth	- - -	tnth
Time	- - -	tm
Times	- - -	tms
Third	- - -	thd
Transformation	- - -	trnsf
Transpose	- - -	trnsp
Transposed	- - -	trnsdp
Transposing	- - -	trnsping
Transposition	- - -	trnsptn
Trinomial	- - -	tnl
Triangle	- - -	tngl
Value	- - -	val

In a similar manner abbreviations may be formed for the principal words of any subject. When these are used in printed books, an alphabetical list of the abbreviated words should be printed at the beginning of the book.



HVL675

W

Wait, William B.

Key to the New York Point system
of tangible writing and printing.

[illegible]

